

INVENTORS

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A NOVEL METHOD TO MANUFACTURE NANOWIRE: SETTING A NEW BENCHMARK FOR ULTRASENSITIVE, LOW VOLUME DETECTION

Patent No.: PI2011003054



ADVANTAGES

- Small volume
- Fast response
- Disposability
- Low analytes consumption
- Non-destructive measurements
- Low stirring sensitivity
- High spatial resolution
- No temperature hysteresis

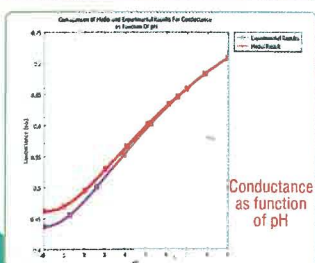
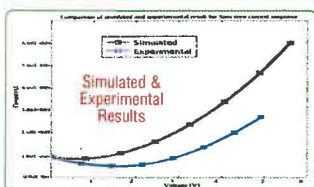
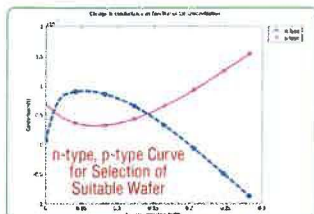
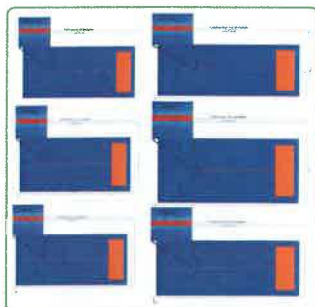
NOVELTIES

- High sensitivity
- In-situ application
- Flexibility of application
- Small size
- Intracellular molecular level interactions
- Re-usability
- Biocompatible
- Simple to modify

SPECIFICATIONS

Items	Specifications
Nanowire width	30 ± 3 nm & 20 ± 3
Nanowire thickness	40 ± 5 nm
Number of wires on chip	4 x 24
Nanowire length	L=1000 microns
Nanowire area width	W=3000 microns
Materials	Single crystalline silicon
Materials on request	Single crystalline silicon / Most of metals and some alloys / Semiconductor metal oxides: ZnO, SnO2 / Single and multi-magnetic layers: NiFe, Co...
Electrode materials	300 nm Pt & Au
Electrode size	3.5 x 1 mm
Substrate material	Insulator of 900 nm SiO2 on <100> silicon
Substrate material on request	Glass, Quartz, some plastics
Chip sizes	A=5 x B=5 x H=0.55 mm

Device Simulation



Pricing

Our regular price for small orders (less 5 devices) of nanowires is RM200, USD \$65/per device - shipping, and we offer volume discounts for larger orders. Please contact us for the latest pricing information.
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MARKET POTENTIAL & PARTNER OPPORTUNITIES



- Target large and expanding markets that offer multiple revenue streams
- strong projected profit margins,
- proven technology with strong patent protection
- A management team with significant experience,
- Unique opportunity for accelerated growth and significant potential return on investment.

APPLICATIONS

BIOLOGICAL		
Biosensors	Diagnostics	Cancer etc
CHEMICAL & THERMAL		
Electrochemical sensors	Thermal adhesives	Heat dissipation
Batteries	Chemical catalysts	

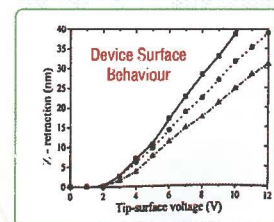
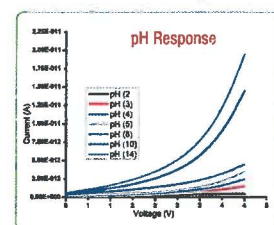
PRODUCT COMPARISON

Items	SIGMA-ALDRICH	NanoMaterials, Ltd	OURS
Price	\$380	\$467	\$65
Technique used	Costly	Very costly	cheap
Environmental Friendly	No	yes	Yes
Re-Usability	No	No	Yes
Modifiable	No	No	Yes

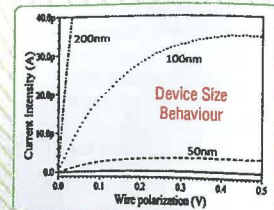
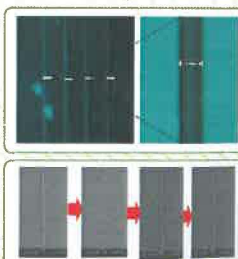
Device Masking



Device Testing



Trimming Process



Collaborators

- Institut Penyelidikan dan Kemajuan Pertanian Malaysia (MARDI)
- Standards and Industrial Research Institute of Malaysia (SIRIM)
- Silterra Malaysia Sdn. Bhd.



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